#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023717 Address: 333 Burma Road **Date Inspected:** 17-May-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Zhu Zhong Hai No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

**OBG # TRIAL ASSEMBLY YARD** 

#### WELDING:

Segment 13AW

This QA Inspector observed ZPMC qualified welding personnel identified as 069841 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3013Q-261; located On Orthotropic Box Girder (OBG) FL3 to Stiffener CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhang Lin. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. The Welding Repair Report (CWRR) was B-CWR2962. ZPMC Quality Control (QC) Mr. Zhang Lin was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW-4G (4F) FCM-Repair-1. See attached photo for further details.

Segment 14 West

This QA Inspector observed ZPMC qualified welding personnel identified as 040655 perform Shielded Metal Arc

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Welding (SMAW), weld joint identified as SEG3020AL-001; located On Orthotropic Box Girder (OBG) Deck Plate to Deck Plate CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Wang Zhu. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. The Welding Repair Report (WRR) was B-WR20681. ZPMC Quality Control (QC) Mr. Wang Zhu was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-SMAW 4G (4F) FCM-Repair-1. See attached photo for further details.

## Segment 13BW

This QA Inspector observed ZPMC qualified welding personnel identified as 066825 perform Flux Cored Arc Welding (FCAW), weld joint identified as SEG3014S-017; located On Orthotropic Box Girder (OBG) Side Plate to I-Rib CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Shi Lei. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Shi Lei was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-T-2231-ESAB.

#### Segment 13CW

This QA Inspector observed ZPMC qualified welding personnel identified as 040270 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3015H-258; located On Orthotropic Box Girder (OBG) VP3015A to RS3471F CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Shi Lei. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Shi Lei was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-B-U2-FCM-1.

#### Segment 13CW

This QA Inspector observed ZPMC qualified welding personnel identified as 069683 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3013C-66; located On Orthotropic Box Girder (OBG) VP3015A to Stiffener CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Shi Lei. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Shi Lei was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-B-U2-FCM-1.

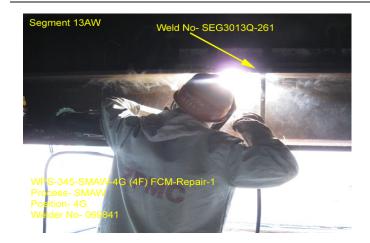
#### Segment 13CW

This QA Inspector observed ZPMC qualified welding personnel identified as 046704 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3014D-229; located On Orthotropic Box Girder (OBG) Deck Panel Diaphragm to Stiffener CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Shi Lei. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Shi Lei was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-B-U2-FCM-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.

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## **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey - 15000026784, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Prabhune, Manoj	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer